

6. (Amended) The via of claim 12, wherein the second interconnect is electrically connected to the ground plane of the circuit such that a voltage drop of the circuit approaches zero.

7. (Amended) The via of claim 12, wherein the first plurality of conductive layers and the second plurality of conductive layers are located in a single printed circuit board.

8. (Amended) The via of claim 12, wherein the first plurality of conductive layers and the second plurality of conductive layers are located in a monolithically integrated set of two or more printed circuit boards.

9. (Amended) A printed circuit board comprising:  
a plurality of vias according to claim 12.

*Please add new claims 12-16 as follows:*

12. (New) A via for use in a multilayer printed circuit board having a circuit, the printed circuit board including a first plurality of conductive layers and a second plurality of conductive layers, the first and second plurality of conductive layers being interleaved in a first direction which extends parallel to an axis of the via, the via comprising:

a first interconnect located about the axis of the via and electrically connecting the first plurality of conductive layers to a signal net of the circuit; and

a second interconnect having a portion located about the first interconnect for electrically connecting the second plurality of conductive layers to a ground plane of the circuit,

wherein the second interconnect is coaxial with the first interconnect and is inductively coupled with the first interconnect.

13. (New) The via of claim 12, wherein the via has a length in the first direction from a first surface of the multilayer printed circuit board to a second surface of the multilayer printed circuit board, and wherein the first interconnect has a length that is coextensive in length with the via.

14. (New) The via of claim 13, wherein the second interconnect has a length that is no more than the length of the first interconnect, the second interconnect parallel to the first interconnect along an entire length of the second interconnect.

15. (New) The via of claim 14, wherein the entire length of the second interconnect is in one plane.

16. (New) A multilayer printed circuit board having a circuit, the multilayer circuit board comprising:

a first plurality of conductive layers;

a second plurality of conductive layers, the first and second plurality of conductive layers being interleaved in a first direction which extends parallel to an axis of the via; and

a via including a first interconnect, the first interconnect located about the axis of the via and electrically connecting the first plurality of conductive layers to a signal net of the circuit, and a second interconnect, the second interconnect located about at least a portion of the first interconnect and electrically connecting the second plurality of conductive layers to a ground plane of the circuit,

wherein the second interconnect is coaxial with the first interconnect along its length in the first direction and is inductively coupled with the first interconnect.